

generating a friction force to discharge the paper from the printer and a heat generator disposed on an inner surface of the cylindrical portion in an axial direction. Sekiya does not anticipate the claims since the roller of Sekiya does not include a rubber covering for generating a friction force to discharge the paper. The coating on the roller of Sekiya is formed from a non-wetting material such as polytetrafluoroethylene. As disclosed in paragraph 118 of Sekiya, the heating roller is made from a material that does not become “wet” from the ink and does not transfer the ink from the recording medium to the roller. The polytetrafluoroethylene covering on the roller of Sekiya is well known to have a very low coefficient of friction, and thus, does not generate a friction force to discharge paper from the printer. The polytetrafluoroethylene coating is not capable of generating sufficient force to discharge the paper as in the claimed invention. Accordingly, the claims are not anticipated by Sekiya.

Rejection Under 35 U.S.C. § 103

Claims 1-3, 5 and 6 are rejected under 35 U.S.C. § 103(a) as being obvious over the alleged admitted prior art in view of Sekiya and U.S. Published Application No. 2002/0130939 to Jacob. The alleged admitted prior art is cited for disclosing an inkjet printer having a printing head and a transfer unit toward the print head. The Action contends that the alleged admitted prior art differs from the claimed invention in that the supporting rolls located above the discharge heater roller include a star wheel for minimizing the spread of ink on the paper and that the roller includes a rubber covering for generating a friction force. Jacob is cited for disclosing a star wheel for minimizing the spread of ink of an image on paper. Sekiya is cited for disclosing a heater roller having a rubber covering for generating a friction force.

The claims are not obvious over the combination of the cited art since the cited art does not disclose a discharge heated roller in contact with the side of the paper opposite the image formed on the paper, a supporting roller located above the discharge heater roller for discharging

the paper together with the discharge heater roller, where the discharge heater roller includes a rubber covering for generating a friction force during the discharging of the paper.

The alleged prior art device described in the specification discloses a heated roller that is clearly separate from the discharge rollers and are positioned downstream of the heated roller. The heated roller of the alleged prior art device is specifically arranged to avoid contact with the printed ink until the ink is dried. The heated roller of the alleged prior art device cannot function as a discharge roller. The prior devices described in the specification provide upper and lower discharge rollers downstream of the heated roller and downstream of the print head so that the discharge rollers contact the printed surface of the paper only after the paper has been heated and dried by the heating roller. As recognized in the Action, the devices of the alleged prior art disclosed in the specification do not disclose supporting rollers located above the discharge heating roller, a star wheel positioned above the heating roller or rubber covering on the cylindrical portion of the discharge roller.

Jacob is relevant to the extent that a star wheel is disclosed in combination with the discharge roller 32. However, the discharge roller 32 of Jacob is nothing more than a drive device intended for discontinuous advancement of the paper. The pressure heating roller 42, 44 of Jacob is positioned downstream of the printing device and downstream of the star wheel 30. Moreover, the heating roller 42 of Jacob cooperates with a pressure roller 44 to transfer the paper to the collection tray 56. In the embodiment shown in Figure 2, the heat and pressure roller system 42 and 44 apply a clear plastic film material 58 onto the printed image. Thus, the pressure heating roller system of Jacob laminates a clear plastic layer onto the printed image. This has no relation to the claimed invention or to the device of the alleged prior art discussed in the specification. As noted above, Sekiya does not disclose a heated roller having a rubber covering for generating friction to discharge a printed paper. Furthermore, Sekiya discloses the roller 88 positioned above the paper so that the roller directly contacts the printed surface. The

heated roller is formed from a non-wetting material such as polytetrafluoroethylene to prevent the ink from adhering to the roller. The paper conveyed by the device in Sekiya is conveyed by the continuous belt 40 and not by the heated roller 88. Sekiya provides no motivation or incentive to one of ordinary skill in the art to replace the continuous belt 40 with a heated roller so that the heated roller is placed below the sheet of paper opposite the printing head.

As discussed above, Jacob discloses the heated pressure roller system downstream of the star wheel 38 and downstream of the printing device. Thus, Jacob is similar to the alleged prior art disclosed in the specification where the heated roller is positioned downstream of the printing head. Jacob provides no motivation or incentive to one of ordinary skill in the art to modify the alleged prior art device to position a heated roller to contact the side of the paper opposite the printed image with a supporting roller located above the discharge roller for discharging the paper. Sekiya does not provide the deficiencies of the alleged prior art and Jacob since Sekiya does not suggest a heated roller contacting a side of the paper opposite the printed image. Therefore, the cited art either standing alone or in combination do not suggest a discharge heating roller in contact with a side of the paper opposite the print head with a supporting roller located above the heated roller for discharging the paper together with the discharge heated roller where the heated roller includes a rubber covering for generating a friction force for discharging the paper as presently claimed. Accordingly, independent claim 1 is not obvious over the combination of the alleged admitted prior art, Jacob and Sekiya.

The claims depending from claim 1 are also allowable as reciting additional features of the invention not disclosed or suggested in the art of record. For example, the combination of the cited art does not disclose the heated roller close to the print head as in claim 2, the supporting roll being a star wheel positioned above a discharge heated roller as in claim 3, the rubber roller being a heat-resistant material as in claim 5, or the heater coil being a nichrome

wire as in claim 6 in combination with the features of claim 1. Accordingly, these claims are not obvious over the art of record.

Claim 4 is rejected as being obvious over the alleged admitted prior art in view of U.S. Patent No. 6,004,052 to Muranaka. The alleged admitted prior art is cited for disclosing an inkjet printer having each of the claimed features except for disclosing an aluminum roll. Muranaka is cited for disclosing an aluminum roll. The rejection is based on the position that it would have been obvious to use an aluminum roll in the alleged admitted prior art.

As discussed above, the alleged admitted prior art does not disclose or suggest the features of independent claim 1. Muranaka does not provide the deficiencies of the alleged admitted prior art.

The device described in the specification provides no suggestion of providing a supporting roll to cooperate with a heating roller where the supporting roll contacts the paper to discharge the paper in combination with the heating roller. Muranaka discloses a printing apparatus having a pair of feed rollers upstream of the printing head as shown in Figure 1. The rollers of Muranaka are feed rollers and not discharge rollers as claimed. In one embodiment of Muranaka, the feed rollers can be heated to remove moisture from the paper prior to printing so that the static charge created on the sheet of paper by the roller is uniformly distributed. Muranaka specifically disclosed the heating is for producing uniform electrostatic charge and removing moisture prior to the printing step. In each of the embodiments of Muranaka, the feed rollers slide over or rub the surface of the paper to produce the electrostatic charge having a predetermined value to assist in the printing step. Muranaka provides no suggestion of heating the paper downstream of the printing head. Muranaka further fails to disclose the combination of a supporting roller above a discharge heating roller where the discharge heating roller contacts the side of the paper opposite the printed image. Accordingly, the combination of the

prior device described in the specification and Muranaka do not render claim 1 or dependent claim 4 obvious to one of ordinary skill in the art.

In view of the above comments, the claims are submitted to be allowable over the art of record. Accordingly, reconsideration and allowance are requested.

Respectfully submitted,



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